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UNIVERSITY OF ALBERTA

THE ACQUISITION OF THE INSTRUMENTAL CASE IN CZECH AND RUSSIAN

BY

ANNA ENENAJOR ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

IN

SLAVIC LINGUISTICS

DEPARTMENT OF SLAVIC AND EAST EUROPEAN STUDIES

EDMONTON, ALBERTA

FALL 1992

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled **THE ACQUISITION OF THE INSTRUMENTAL CASE IN CZECH AND RUSSIAN** submitted by **ANNA ENENAJOR** in partial fulfillment of the requirements for the degree of **MASTER OF ARTS IN SLAVIC LINGUISTICS**.

Dr. Tom M. S. Priestly, supervisor

Dr. Kyril T. Holden

Dr. Bruce L. Derwing

DEDICATION

This thesis is dedicated to my parents Štefánia and Ján Markovič, to my husband Gilbert and to my children Annamaria, Emanuela and Gilbert.

ABSTRACT

This thesis comprises a comparison of the acquisition of the instrumental case forms in the speech development of two children speaking two different Slavic languages, based on a study of two diary studies of their linguistic development. More specifically, it focuses on the application of three of Gvozdev's hypotheses about the acquisition of Russian as a native language to the acquisition of the instrumental case forms in the speech development of a Czech speaking boy.

Chapter I treats general aspects of Slavic morphology with a particular focus on relevant nominal forms in Czech and Russian morphology. This is followed by descriptions of the data, the methodology, and the three hypotheses that form the core of the thesis. Chapter II comprises a survey of prior research in the acquisition of English morphology, and of the acquisition of Czech and Russian morphological structures with special reference to instrumental case acquisition. Chapter III presents a description of Gvozdev's diary and a detailed survey of Zhenya Gvozdev's acquisition of the instrumental case forms. Chapter IV begins with a description of Ohnesorg's diary, which is followed by an analysis of Karel Ohnesorg's acquisition of the instrumental case forms. The final chapter comprises a summary of similarities and differences in the acquisition of the instrumental case forms in the speech development of the two children, and reviews Gvozdev's three hypotheses in the light of the data examined earlier.

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AND

Most importantly, I would very much like to thank my husband Gilbert for his understanding and support; without him this thesis would not have been possible.

TABLE OF CONTENTS

CHAPTER ONE: INTRODUCTION.....1

1.0. Slavic Morphology.....1

1.1. Structure.....4

1.2. Data.....4

1.3. Procedure.....6

1.4. Establishing the Hypotheses.....6

1.5. Limitations.....8

CHAPTER TWO: PRIOR RESEARCH.....10

2.0. General.....10

2.1. Research on English.....11

2.2. Research on Slavic Languages.....16

CHAPTER THREE: GVOZDEV.....34

3.0. The Diary.....34

3.1. The Acquisition of Morphology: Early Stages.....37

3.2. The First Stage: The Ending -ом.....38

3.3. The Second Stage: The Ending -ой.....42

3.4. The Plural Forms.....45

3.5. The Semantic Function of the Instrumental Noun Phrase.....46

CHAPTER FOUR: OHNESORG.....52

4.0. Previous Work.....52

4.1. Ohnesorg's Study....52
4.2. Our Analysis....54
4.3. The Masculine Nouns....56
4.4. The Feminine Nouns....58
4.5. The Neuter Nouns....59
4.6. The Plural Forms....60
4.7. Instrumental Prepositional Phrases....62
4.8. The Semantic Function of the Instrumental Noun Phrases....69

CHAPTER FIVE: ANALYSIS AND CONCLUSIONS....74
5.0. General....74
5.1. Hypothesis (1)....75
5.2. Hypothesis (2)....76
5.3. Hypothesis (3)....78
5.4. Additional Remarks....83

BIBLIOGRAPHY....85

APPENDICES....91

CHAPTER ONE: INTRODUCTION

1.0. SLAVIC MORPHOLOGY

The purpose of this study is to make a contribution to our understanding of child language, to help determine how much knowledge of morphology children have and how it is acquired. In particular, we are interested in the process of learning--more precisely, the initial "formative" stage in the acquisition--of the nominal instrumental forms by a Russian-speaking boy Zhenya and a Czech-speaking boy Karel. We strongly feel that the more research we have in the area of the case acquisition the more confident we can be in applying the findings to other languages with the same structure, and the more probable it will be that we can see if the principles on which the languages function are universal.

As mentioned above, this thesis will deal with the acquisition of the instrumental case of nouns in Russian and Czech languages only, namely, the child's productive capacity for the instrumental case. Here is a brief introduction into the complexities of the Russian and Czech morphological structures. Formally, Russian has six cases and Czech seven. Because of the functional similarity of these two languages, the meaning of the instrumental case and its major functions are similar in both. Formally they are similar too; in both languages the instrumental case has an extra syllable (inflectional suffix) attached to the root of the word, i.e., they

are morphologically marked forms (for more detailed information see Appendices I and VI).

When a Russian or Czech child is learning morphology, he or she has to master a large number of inflectional categories and a variety of forms within each category. Further, within the system of noun declension these forms differ according to sound relations (soft and hard stem nouns) and grammatical relations (gender and number). It is very important to mention the role of gender of nouns, both grammatical and inherent, in the process of acquisition of the instrumental case forms. The nominative case ending of the noun determines, on one hand, to which declensional type the noun belongs and, on the other hand, the grammatical gender itself is determined by the morphological features of the nominative case ending of the form. Cases function as the indicators of conceptual relationship between noun-phrases in sentences; in other words, case marking tells us who is the agent, patient, instrument, benefactor, recipient, experiencer, possessor, source, etc.

Czech and Russian are both synthetic languages and they belong to the group of Indo-European languages, where the category of case is expressed through inflections, as well as by analytic prepositions. Therefore, in the Czech and Russian language systems neither postposition, nor word order are applied to express the above notions of conceptual relationship.

Russian has nouns of three grammatical genders, like other Slavonic languages, and has two numbers. We will

examine only the instrumental case endings and the types of nouns which are frequent in the adult Russian language. These are as follows:

For the instrumental singular ending of the masculine and neuter nouns, the ending **-ом**, e.g., стол - столом, окно - окном, мальчик - мальчиком. For the instrumental singular endings of the feminine "a-nouns", the ending **-ой**, e.g., жена - женой, рука - рукой. For more information see Appendix I. For the instrumental plural endings of masculine, neuter and feminine nouns it is the ending **-ами** that is considered.

Czech has also nouns of three grammatical genders and two numbers. Moreover, when analyzing the acquisition of the instrumental case forms of Czech-speaking children, one has to have in mind the fact that right from their birth they are exposed to two language varieties: Standard and Colloquial Czech language. The influence of Colloquial Czech is much stronger before the age of six when the child starts to attend elementary school. We will examine only the instrumental case endings and the types of nouns which are frequent in the adult Standard and Colloquial Czech language. These are as follows:

In Czech for the instrumental singular ending of the masculine and neuter nouns, the ending **-em**, e.g., letadlo - letadlem, vlak - vlakem, park - parkem, dům - domem. For the instrumental singular endings of the feminine "-a nouns", the ending **-ou**, e.g., tužka - tužkou, zahrada - zahradou.

The instrumental case forms in Standard and Colloquial Czech are different only in the plural. In Standard Czech, for

the instrumental plural endings of masculine and neuter nouns it is the ending **-y** that is considered, e.g., bratr - bratry, strom - stromy, pero - pery, auto - auty. For the feminine nouns ending in **-a** in the nominative case singular we concider the ending **-a m i**, e.g., tužka - tužkami, hora - horami, květina - květinami. In Colloquial Czech, however, there is only one ending used for all nouns; **-a m a**. For the complete system of regular noun declension in Czech and Russian see Appendices VI and I.

1.1. STRUCTURE

Chapter II provides an introductory treatment to the main body of work done on the acquisition of the English morphology in terms of factors influencing the process of learning, as well as the age at which different inflections are acquired, followed by, within the limits of current knowledge, a detailed discussion on the acquisition on Czech and Russian conducted by other researchers. Chapter III is devoted to Gvozdev's diary, and Chapter IV to Ohnesorg's diary. Chapter V comprises conclusions of the study based on the results of our comparison of Zhenya Gvozdev's and Karel Ohnesorg's acquisition of the instrumental case endings.

1.2. DATA

For this study two diaries have been used, one of Russian

language acquisition written by A. N. Gvozdev, Formirovanie u rebenka grammaticeskogo stroja russkogo jazyka, Moskva, 1949, Akademija Nauk RSFSR and the other one of Czech language acquisition written by K. Ohnesorg, Fonetická studie o dětské řeči, Praha, 1948, FFUK, each of them following and recording the linguistic development of their own children; Zhenya Gvozdev in Gvozdev's case and Karel Ohnesorg in Ohnesorg's case, both of them two physically and mentally healthy children. They both grew up in an urban environment and in educated households.

Most situations are described in both diaries, so we can be sure that each child was trying to use a particular form even if it is not explicit from the recorded utterance.

Gvozdev's diary is a detailed study of Zhenya's language acquisition from 0;0,0 until the age of nine; however, for the purpose of this project only that period will be examined when the subject was acquiring the forms of the instrumental case of nouns (1;11 - 4;0).

As opposed to Gvozdev's study which deals with the acquisition of the child's morphology, Ohnesorg's diary is basically a study of the different stages of phonological development of Karel's speech. Nevertheless, the material available is a rich source of information in the area of morphology, syntax and pragmatics, to name only a few. In Chapter IV a brief introduction is given with respect to the structure of the diary. Subsequently, the stages of Karel's

acquisition of the instrumental case forms are analyzed in terms of Gvozdev's hypotheses (see below).

1.3. PROCEDURE

The performance of each subject during the crucial period when they were going through stages of the instrumental case forms acquisition is analyzed and compared. We will try to see, in particular, whether the subjects choose the same strategy, whether they were undergoing the same stages during the process and what are the reasons why they choose a particular ending. Conclusions will be drawn with respect to the following points:

1) Predominant endings in the instrumental case; i.e., through a careful examination of the available information we will be able to determine which of the endings (in both singular and plural nouns) is more frequent as well as whether and, if so, why the subjects overgeneralize certain case endings.

2) The age at which the subjects acquire the forms of the instrumental case.

3) Whether and if so, when, and, perhaps, why the subjects omit the prepositions that govern the instrumental case.

1.4. ESTABLISHING THE HYPOTHESES

Gvozdev based his hypotheses on the analysis of the acquisition of a number of categories. In this thesis these

hypotheses will be tested only with respect to the instrumental case forms of singular and plural.

Because of the similarities in morphological structure of the Russian and Czech languages we will test the hypotheses about the acquisition of morphological endings in Russian that were put forward by Gvozdev on the acquisition of the instrumental case in Ohnesorg's data, with the aim of seeing how and to what extent they can be applied on Czech.

The hypotheses to be tested comprise the following:

1) The cases are acquired at the initial stage of acquisition of morphological endings as the bearers of certain syntactic meanings, i.e., the children do not use one case instead of the other, e.g. prepositional instead of instrumental, although very often and for a very long time they mix different case endings within a case.

2) The synthetic means of expressing grammatical meanings are primary, i.e., where prepositional phrases are concerned, the children feel that the suffixes and not the prepositions are sufficient enough to express the meaning.

3) The quantitative relationship between different endings within the instrumental case influences the process of substitution, i.e., the more frequent endings in

the adult language replace the less frequent ones and this fact is demonstrated in the order of acquisition of the variants concerned.

This third hypothesis involves consideration of other factors, see especially the remarks on Slobin in Chapter II.

Thus, in this thesis we do not just compare Gvozdev's and Ohnesorg's data, but we also discuss Gvozdev's hypotheses and the data we have in the light of other theoretical approaches. During the analysis reference will be made to other discussions of the acquisition of the instrumental case, e.g. by Slobin, Dingwall and Tuniks, Zakharova, etc.

1.5. LIMITATIONS

The results of the study will show how the data in Ohnesorg fit into Gvozdev's system, as well as whether the hypotheses are supported, or not. In addition, they may also provide some indications, or at least hints about the general applicability of certain of Gvozdev's theories to the Czech language.

The findings of this study, however, should not be generalized to all Czech and Russian children because of a severe constraint on the quality of available data: the number of subjects involved in it is minimal. It is obvious that more tests will have to be performed in order to receive more data for testing the hypothesis.

Another limitation is the inability to provide complete data on the frequency of forms in the language spoken to the children, and in the language spoken by the children. What is available from the diaries is type frequency only. Neither of the studies constitutes an exhaustive account of token frequency: for this we would need a complete record of child's speech, i.e., every word spoken by the child from the onset up to the age when the grammatical morphemes of the instrumental case were acquired. Because in this thesis we rely on type frequency only, the analysis will be incomplete.

CHAPTER TWO: PRIOR RESEARCH

2.0. GENERAL

The interest in studies of language acquisition and language development have ancient roots, however, most of the research done in the past was concentrated on what children said rather than how the acquisition of different linguistic systems worked. Diaries were kept by researchers as evidence of what was said at a particular time of the child's linguistic development and not as a means or tool to arrive at conclusions.

It might have been the transformational theory of Noam Chomsky that accelerated the work of child language researchers in some new areas of this branch of linguistics. They became interested, among other things, in how the child acquires certain linguistic structures, what processes are involved in child language acquisition, and what is the role of memorization, as opposed to creativity, in this process.

Languages differ from one another, among other things, in their morphological structure. In the past, researchers dealing with the acquisition of morphology focussed mostly on English, despite the fact that English with the limited number of its grammatical morophemes was not the best choice for the study of morphological development.

Researchers like Brown and Slobin, who studied the acquisition of the morphological rules crosslinguistically,

were trying to find some general rules, some universals that could account for acquisition of the grammatical morphemes in general.

In our study we will look at some of the most important works done on acquisition of the inflectional morphemes in the linguistic development of English-speaking children, as well as research conducted on the acquisition of Russian and Czech as native languages, with special reference to the children's capacity to produce the grammatical endings of the instrumantal case.

2.1. RESEARCH ON ENGLISH

Brown (1973) was one of the first to establish the ways in which grammatical morphemes differ from one another as well as what accounts for their order of acquisition. His work is, perhaps, the most cited study of the order of acquisition of the English inflectional morphemes. He carried out a test in order to see whether it is the frequency that accounts for the selection of a particular order of acquisition of certain morphological endings. He examined the speech of three children (his longitudinal study of Adam, Eve, and Sarah) during the period when they started using inflectional morphemes, as well as the speech of their parents during the same time.

The results of his survey showed that there was no relationship between the frequency of morphemes in the parent's speech and their order of acquisition by children. It

was the prepositions which were acquired by the children very early, even though they were not among the most frequent morphemes in the parents' speech.

Further on, he developed the notion of perceptual salience, as well as the notion of semantic and grammatical complexity, as features of the grammatical morphemes influencing their order of acquisition. Under perceptual salience of a grammatical morpheme Brown understands the presence or absence of stress, its syllabic or nonsyllabic character, whether the morpheme is free or affixed, as well as its position in a sentence.

Under the category of grammatical complexity, the role of which is relevant to our field of study, Brown discusses, among other things, redundancy of morphemes; by this he means that if we have the ending of the case, e.g., instrumental, we can predict the preposition, the preposition thus being redundant. With the exception of prepositions like **на, в, с, за,** etc. that are expressing location as well as direction, thus being semantically ambiguous, a reverse formulation can also be true: if we have the preposition (e.g., **под, над, к,**), the case ending can be predicted. This is a callenge to Brown's statement that prepositions are redundant elements in language.

The "telegraphic speech" label that **Brown and Fraser** (1963) used to describe the reduced utterances of children that were tested gives us an idea, among other things, about the

children's grammatical system. The findings from the six children tested reveal that generally, most of the children have a tendency to delete the grammatical words when repeating utterances, but they remember the lexical and contentive words. Since some prepositions were included into the "telegraphic speech", it throws some doubt on the formulation of this notion.

Miller and Ervin (1964) justified this phenomenon by the fact that those words that are highly stressed in the adult language are perceptually more salient, resulting in the fact that the children tend to choose them more than the others. Further, in most cases the children had difficulties with imitation of certain grammatical morphemes, e.g., the past tense morpheme. These findings only support Berko's results (which are discussed below) which showed a similar degree of difficulty in imitating the sentences with past tense morphemes.

Berko's (1958) well-known "wug" study is clear evidence that when learning the morphology of a language, the children are actually acquiring a rule-governed system, and not repeating structures that have been heard before. According to Ingram this work "probably more than any other marked the onset of the modern era of child language studies" (1989:439). Berko studied the order of acquisition of certain grammatical

morphemes in a series of experiments with real and nonsense words.

Berko's technique of study of the inflectional morphemes in language acquisition provides a better explanation of the way in which four- and five-year-old children treat different words and different morphemes. At the same time, it provides us with evidence that at this age the children have basically mastered the inflectional system of the English language. Her findings show that when acquiring the past tense morphemes of the English language, the children experience some difficulties; however, there are no indications in her studies about how the process of acquisition procedes. Ingram warns us about the insufficient number of tested subjects (80 children only) which may contribute to some degree of inaccuracy of the received results (1989:440).

Cazden (1972) conducted a study in the field of acquisition of the English plural morphemes. The results of her study show that there is some developmental pattern in this process, namely, there are four main developmental periods:

(1) absence of inflection,

(2) occasional production with no errors or overgeneralization,

(3) increased production with errors or overgeneralization,

(4) correct usage at the arbitrary 90% level (1972:33).

According to Cazden, the period between the second and the third stages points to a very important phenomenon in the process of acquisition of the plural morpheme in the English language. It is evidence that overgeneralization has became a productive rule, meaning, the child is not imitating, but creating.

If we summarize the conclusions reached to this point, the preceding discussion constitutes, among other things, evidence of several factors that may account for the invariant acquisition order of grammatical morphemes in general, as well as influencing the acquisition of the instrumental case forms in particular. As the studies suggest, among the primary determinants identified by linguistic researchers are: semantic or cognitive complexity, linguistic complexity, frequency of occurrence in the adult language, perceptual salience, as well as the notion of "rule strength" introduced by **Derwing and Baker**. This, according to them, is a multivariate notion comprising within itself a competition-like relationship "among alternative or conflicting formal patterns" (1979:213). All these factors incorporate the "salience" of endings in one form or another. Frequency of ending in speech environment, its acoustic prominence, as well as its restricted semantic function are all different forms of "salience".

None of the above mentioned factors has been considered in any of the studies as the most important one. All of them, most likely, interact during the process of morphological

acqusition, each of them contributing a great deal to the process.

The frequency of occurrence in the adult language, the perceptual salience of the grammatical morpheme, and the grammatical load of the ending i.e., its formal ambiguity as opposed to semantic clarity, could be all named "external" influences, or stimuli, because they all belong in the adult language, which the child hears from "outside"; they constitute an external input to the child's linguistic developmental process.

2.2. RESEARCH ON SLAVIC LANGUAGES

In general, Slavic languages have much freer word order than the English language because they rely on grammatical morphemes to mark functional roles. In this group of languages our study will be directed towards the research done in Russian and Czech, where the morphological structure of these languages is very similar. Attempts have been made through Komenský University to get any information available about research in acquisition of morphology of the Slovak-speaking children, but it appears that no research relevant to our examined problem has been done in Slovakia.

2.2.1. Research on Russian

Zakharova (1958) performed an experiment with 200

children between the ages of three and seven where she examined the role of gender in the children's choice of the case endings.

Some of her observations are very similar to the ones of Gvozdev's Zhenya (see below). She discovered that the younger children had not yet acquired the category of grammatical gender, but that they simply picked certain endings and used them as the universal markers of a particular case. The masculine suffix -ом is used by the youngest children as a general marker for the instrumental case and the feminine suffix -у for the accusative case.

According to Zakharova, it is the frequency of occurence as well as the clear phonetical marking of the ending -ом that influence the process of acquisition of the instrumental case forms in children. Similar to Gvozdev's are also Zakharova's findings about the acquisition of masculine and feminine suffixes of the nouns ending in soft consonants: correct inflections are acquired only between the ages of six and seven years.

Feofanov (1958) performed an experiment with children, ages three to seven, testing the use of prepositions in their speech. The results showed that the most frequently used prepositions in the adult language, на, в, and с were learned by the children earlier than the other ones.

The fact that these three prepositions have the greatest number of meanings did not function as a disturbing factor in

the acquisition of their forms. This strongly contrasts with Zhenya's acquisition of the instrumental case inflections where the earlier acquired forms were the ones having fewer meanings.

At the same time, he attributes the children's inability to spot the border between the prepositions and the following word to the fact that many Russian prepositions, being single consonants (e.g., с, к, в), form consonantal clusters with the following word.

On the other hand, Feofanov's findings coincide with Gvozdev's observations in the sense that in both studies the earlier acquired prepositions were used only in concrete functions.

We decided to mention **Popova**'s study (1958) of the development of grammatical gender here because her results show similar ways of acquisition of this grammatical category through overgeneralization, findings similar to those by Gvozdev. She suggests that Russian-speaking children between the age 1;10 to 2;6 tend to overgeneralize the feminine past tense verb ending -а, while in the group of the older children, age three years and above, the zero masculine verb ending predominates.

Popova justifies the initial overgeneralization of the feminine ending by the fact that -а is a very strong and consistent gender marker, as well as by the fact that Russian-speaking children tend to use open, prolonged syllables,

meaning, in their pronunciation, they add a vowel to the consonantal endings of masculine nouns. Another item of information supporting this argument is provided by the statistics from diary materials which shows that 70% of the words of Russian-speaking children of the age between 1;10 to 2;6 end in - a (1973:274). It appears that it is the combination of phonology and semantics that function here.

However, as soon as children acquire the zero masculine form of the past tense verb endings, which happens around the age of three years or shortly after, it overtakes the previous feminine ending - a. They start using it again later, as they are getting closer to the age of four.

Slobin is one of the pioneers in the area of the cross-linguistic comparison of morphological acquisition. He wrote about grammatical acquisition on a number of different occasions and the following is based on four of his writings (1963, 1966, 1971, and 1973). His extensive works made it possible for the English-speaking reader to get access to Gvozdev's work (discussed in chapter III).

Most of his research on grammatical development and language acquisition in Russian (1973) is based on Gvozdev's diary, as well as some other data from language acquisition of Russian-speaking children to support some of his universals of language acquisition. The studies of Popova and Zakharova, mentioned earlier in this chapter, as well as the research of Bogojavlenskij who examined the understanding and use of

suffixes in word derivation by children, and Gvozdev's diary and its analysis, are the sources of the Russian language data that Slobin was working with when trying to propose language universals. In all that he wrote on grammatical acquisition, with respect to the acquisition of Russian morphological inflections relevant to our study, his most important conclusions can be summarized in three main points:

(1) Exploration of the inflectional system of languages with relation to formal homonymy and diverse semantic functions of grammatical morphemes.

One of Slobin's proposed universals says that if there are homonymous forms in the inflectional system of a language, these will not, most probably, be the first inflections learnt by the child. On the contrary, the child has a tendency to choose the forms that are more distinct.

When acquiring the forms of the instrumental case endings, Russian children learn the masculine and neuter suffix -ом earlier than the more frequent feminine ending -ой. Slobin explains this phenomenon on the basis of the fact that the latter one has five other functions, apart from being the marker of the instrumental case of the feminine nouns: it is the nominative singular ending for masculine adjectives, as well as genitive, dative, instrumental and locative ending for feminine adjective. Thus, due to its unclear semantic function the child chooses the suffix -ом as the unique marker of the instrumental noun phrases.

(2) Research on acquisition of grammatical inflections in respect to their acoustic salience.

When studying the acquisition of the grammatical endings, Slobin talks abut the clarity of their acoustics as one of the most important factors that influence the process of their learning (1966). He points out that the selection of endings that the child uses depends on the clarity of its acoustics as well as the limited number of functions that it performs.

(3) Study of stages of acquisition of grammatical morphemes with regard to their frequency of occurrence in the adult language.

Talking about the acquisition of the complex Russian morphological system, Slobin does not bring up any single factor as a dominant one; rather, he mentions them as a set of equal partners, exchanging roles according to the conditions:

The child's solution is to seize upon one suffix at first - probably the most frequent or most clearly marked acoustically - and use it for every instance of that particular grammatical category (in Smith and Miller 1966:138).

Following the examination of developmental stages of a number of Russian speaking children, Slobin proposed another universal, proposing 4 stages of linguistic marking of a semantic notion:

(1) no marking,

(2) limited appropriate marking,

(3) overregularization of marking (sometimes redundant),

(4) marking that corresponds to the adult system of inflections.

Overgeneralization, according to Slobin, can go even further, meaning, that a newly acquired ending will displace an old, familiar one. The acquisition of the instrumental case forms provides him with an example. When acquiring these forms, as mentioned earlier, it is the masculine and neuter ending -ом that children learn first, this being overgeneralized also on nouns of the feminine gender.

Later on the ending -ом is replaced by the feminine ending with -ой which is also overgeneralized on endings of other genders. Children start using these inflections appropriately only at a later stage of their linguistic development. For a more detailed discussion see Chapter III.

Instances of similar ways of acquisition can be seen in the process of learning of the past tense endings of verbs. Here the Russian-speaking children tend to use the feminine past tense ending -а for all verbs, irrespective of the gender of the subject. After this stage, there is a period of mixed endings. These are sorted out according to the gender of the subject of the sentence only later (Slobin 1973:204-205).

Slobin justifies this phenomenon by the fact that "these endings are of high frequency and clearly marked acoustically

in adult speech and limited in the number of functions they perform" (in Smith and Miller 1966a:136).

To summarize Slobin's universals, his work (1979) suggests that before the children productively acquire a particular morpheme in order to mark grammatical relationships, they have to understand the concept, the semantic property that the particular morpheme stands for. At the same time, examples from the data available from the diaries, as well as the results of the researches mentioned above, serve Slobin as an evidence that it is the complex grammatical structure of the language (distinction in case, gender, and number) that influences the slow process of the linguistic development of Russian speaking children.

Motivated by Gvozdev's work, and, perhaps, the work of some other linguistic researchers (Chomsky, Slobin, Popova), as well as the psycholinguistic study of imitation, comprehension, and production done by Fraser, Bellugi and Brown (1963), **Dingwall** and **Tuniks** (1973) published results from series of experiments dealing with the acquisition of government and concord by Russian-speaking children. Though targeted at the acquisition of government and concord in Russian, their research constitutes a valuable source of information for our present study. They conducted the experiments in 1970 in the former Soviet Union with the aim of advocating more

experiments in order to expand the data base in the area of child language acquisition:

What is needed, then, is not to shield the theory from experimental testing or other sources of external data but rather to enlarge the class of external data for which the theory is accountable (1970:127).

Apart from other things, their experiments were focused on testing the validity of a number of Gvozdev's hypotheses with a number of subjects, whose age ranged from 1;6 to 8;0. Among other things, they wanted to know whether other Russian-speaking children would choose the same strategy as Zhenya, i.e., choosing one particular ending over another for a particular case. At the same time they were interested in determining why certain endings were chosen by the children as unique markers for a particular case. They took into consideration several factors and they examined them in the light of the gathered data:

(a) the frequency of occurrence of the morphological ending,

(b) its acoustic prominence,

(c) its semantic simplicity, and

(d) maximal differentiation (between certain cases, between two cases governed by one preposition, and between cases and word order).

The results of their research presents a picture that is in many ways different from the ones presented by Gvozdev.

The tested children did not show the same strategy and manner of case acquisition as Zhenya did: "...our findings do not support such a sweeping generalization" (163). With respect to the acquisition of the instrumental case forms, their findings differ a great deal from Gvozdev's observations: they did not notice any overgeneralization of one ending over the other. Instead, when having problems to produce a form of the instrumental case, they noticed that the children tended to substitute it with another case ending:

Subject #22, age 2;4,0

- А чем девочка рисует цветочки?

- Тазясик.

- А чем?

- Тазясики рисует?

Subject #20, age 2;4,9

- А чем ты будешь кушать?

- Лоску.

Subject #17, who is approximately two months older than the two subjects mentioned above, was able to produce almost all the instrumental case forms right (148). Neither of these findings, however, were predicted by Gvozdev's hypotheses.

Moreover, in the instrumental case, unlike in the other cases, the hypothesis about comprehension antedating production (Fraser, Bellugi, and Brown) was not observed (162-163). Sets of sentences were presented to the children in order to test their responses to different commands, e.g., action, touch, look, reply, and repetition, e.g.:

Accusative/Instrumental:

(a) Покажи мне куклу.

(b) Покажи мне карандаш.

(c) Покажи мне куклу карандашом.

The results show that "it is just those children who do not yet produce it or who fail to produce it correctly who do not comprehend it" (163). For comparison see Table 10, subjects 23-28 in Dingwall and Tuniks, 1973).

At the same time, Dingwall and Tuniks discovered, among other things that the largest number of errors in case distinctions were produced in the instrumental case by the children tested. Their argument is that "...the instrumental represents a more abstract semantic notion than other cases do, ..."(150), and is, therefore, acquired after them.

However, the overall rate of mistakes was very low: out of 355 cases only 48 were marked by the children incorrectly. Consequently, even the youngest children could comprehend the dative and accusative, but not instrumental. At the same time, out of all the examined prepositions, it was the preposition **на** that caused the most difficulties.

Just as in Gvozdev's analysis, Dingwall and Tuniks observed that case marking in plural lags considerably behind that in singular (148-149). The order of acquisition of the individual cases was nearly the same as reported by Gvozdev.

Of special interest is their study of the relation between inherent sex and grammatical gender, which is an important factor in acquisition of the case endings. Their findings show that commonly used nouns, like дядя and дедушка, though inherently masculine, are declined as feminine and have masculine concord. They contribute this factor to frequency of occurrence in the child's linguistic environment. The children, however, irrespective of their age, had problems with nonsense nouns like куздра, лазуль, топ; within the age range investigated. This only points out at the importance of semantics in language acquisition.

As can be gathered from the information above, their results suggest that language development is a very complex domain. Undoubtedly, more studies, both naturalistic and experimental will have to be done before any findings can be considered universal. One has to be very cautious before drawing conclusions about overgeneralization.

2.2.2. Research on Czech

Pačesová (1968) studied the linguistic development of a Czech-speaking boy Jaroslav, her son, regularly from the

beginning of his speech until the age of two. Her research is divided into three periods, namely, the stage of the first fifty words, the stage of the first one hundred words, and the stage of the first five hundred words.

In each of the three parts she gives a brief analysis of the melody of speech, stress and quantity (where applicable), followed by the phonological analysis of the vowels, consonant, and consonantal clusters (where applicable). Next comes the analysis of the parts of speech followed by tables of vowels and consonants. The vocabulary comes at the end of each part.

Through the phonemic analysis of each of the periods we have the opportunity to follow the way in which the language has been gradually mastered by her son.

The findings from her diary and the additional data from other children available in her book Řeč v raném dětství (1979) correspond in some ways with those from Ohnesorg's diary. However, Jaroslav's linguistic development "was ahead of his chronological age" (1968:16), both phonologically and morphologically. This could be the reason why instrumental case endings appeared quite early in his vocabulary, when he was less than two years (1968:243, 246).

> 1;9,30.....vla:čkem[1]; ('by train); this form, however, is ambiguous, because it can also be considered an adverb

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[1] Pačesová uses a colon to mark long vowels in Jaroslav's speech.

1;10,20....s feti:lkama (colloq. = se svjetílkama, stand. = se svetílky); ('with lights'); the first unambiguous form of the instrumental case pronounced by Karel.

1;11,18.....apala:tkem cvak (=aparátkem cvak); ('he clicked with the camera);

The frequency of cases in Jaroslav's language in the singular is higher than in the plural, which corresponds with the statistics about adult Czech (see Appendix VII). Her findings reveal that Czech-speaking children acquire the hard singular nominal endings much easier than any other ones. Compared to the rest of the cases, the instrumental, dative and vocative are acquired much later. According to Pacesova, it is once more the factor of frequency of use in the adult language that plays a role here (1979:76-77).

Czech speaking children, according to Pačesová, do not have difficulties in production of the instrumental case masculine ending **-em**. They do, however, tend to overgeneralize it on nouns that are masculine in their inherent gender, but feminine in the declensional type they belong to, since their nominative singular form ends in **-a**. In her study this happens mostly with the younger Czech-speaking children, who are just starting to learn the complexities of the Czech morphological system. They do not consider the paradigmatic rules as the most important factor in deciding on the grammatical inflections, but follow the inherent gender of the noun when assigning the endings of the instrumental case.

In the case of "táta" ('father') and "strejda" ('uncle') which are inherently masculine, but grammatically feminine in gender, thus requiring the feminine instrumental case ending **-ou**, Czech speaking children tend to use the masculine instrumental case ending **-em** (1979:75). Despite the fact that ending **-em** is a highly productive ending in the Czech morphology, Pačesová's interpretation is that in many cases this could also be the influence of parallel forms found in colloquial language (1979:75).

předsedem (colloq. = předsedem, stand.= předsedou); ('by the chairman') n.d.a.[1]

starostem (colloq. = starostem, stand = starostou); ('by the Mayor')

However, since most Czech-speaking children start acquiring the forms of the instrumental case around the age of 2;0, which is the time when the complex morphological system of the Czech language seems to be a burden too heavy for them to carry , this phenomenon could also be a factor of influence.

Pačesová's findings show that the feminine hard stem instrumental ending **-ou** is overgeneralized on the soft stem nouns, thus resulting in forms like:

košilou (colloq. = košilou, stand. = košilí); ('with a shirt') n.d.a.

kosťou (colloq. = kosťou, stand. = kostí); ('with a bone') n.d.a.

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[1] n.d.a. = no date available

This again, according to her, could be the influence of the Colloquial Czech language. In the information we have available about the formation of the instrumental case endings of neuter nouns, Pačesová does not mention any errors in the linguistic development of Czech-speaking children; they are all formed according to the rules of the Standard Czech language(1979: 75):

městem.....('behind/with the town'); n.d.a.

mořem.....(' " " the sea'); n.d.a.

zelím.....('with the cabbage"); n.d.a.

The examples in Pačesová's diary show that right from the beginning, there was one predominant ending in the instrumental case forms of plural nouns in Jaroslav's speech.

1;7,12.....plst'i:ckama (colloq. = prstíčkama, stand. = prstíčky); ('with small fingers)

1;10,20.....s feti:lkama (colloq. =se svjetílkama, stand. = se svetílky); ('with small lights')

Pačesová's explanation is that it is the parallel instrumental ending **-ama** of colloquial Czech that affects the child's process of learning the instrumental case inflections, as well as the tendency of the language to eliminate any lexical/formal ambiguity and move towards a higher semantic clarity;the ending **-y/-i** is the the form used for the nominative and accusative cases of plural masculine nouns, vocative case of masculine and feminine plural nouns, as well

as masculine, feminine and neuter forms of instrumental case plural nouns (1979:76).

The overt expression of prepositions in prepositional phrases is acquired by the Czech-speaking children at a later stage of their linguistic development; before this they omit the preposition. Pačesová's argument is that the salience of the instrumental case ending, both singular and plural, is sufficient enough to express the required semantic situation (1979:119). Morever, she justifies this phenomenon also by the fact that for a Czech-speaking child the word order appears to be primary and, at a particular stage of his linguistic development, the only criterion that distinguishes the subject from the object.

> chlebíček maslíčkem (= chlebíček s maslíčkem); ('bread and butter'); n.d.a.
> polívečka nudlíčkama (= polívečka s nudlíčkama); ('soup with noodles'); n.d.a.

Analyzing the work done on child language acquisition, we have concentrated on problems relevant to the hypotheses we are considering in our thesis.

As far as we can see, the subject of confusing different cases is discussed by Gvozdev, Dingwall & Tuniks, Pačesová, and Slobin. It is mentioned, however, not analyzed, as we will se below, in Ohnesorg's diary. The matter of missing prepositions is studied by Brown, Gvozdev, Pačesová, and

observed, but not investigated by Ohnesorg. The choice of ending overgeneralization was researched by Brown, Miller & Ervin, Cazden, Derwing & Baker, Gvozdev, Dingwall & Tuniks, Pačesová, Zakharova, Popova, and Slobin.

It is evident from the above information that most of the researchers discuss the problems involving Hypothesis (3), i.e., the order of acquisition of the grammatical morphemes and factors influencing it. Considering the problems connected with data collection from the speech development of small children, many researchers are avoiding the painstaking process of diary writing. Despite all the shortcomings involving mostly lack of sufficient data, investigators in this field do agree on the fact that it is the interplay of, perhaps, all three factors, i.e., frequency, salience and semantic and formal clarity, that plays a role in the acquisition of grammatical morphemes.

CHAPTER THREE: GVOZDEV

3.0. THE DIARY

Gvozdev's diary of his own child's language acquisition "is probably the most careful and intensive longitudinal study of a child language development ever published anywhere" (Slobin 1971:344). Gvozdev recorded his son's speech phonetically, and almost on a day to day basis, until Zhenya reached the age of nine (from 1921 till 1929). However, in this thesis only the period from 1;11 till 4;0 will be examined when most of the forms of the instrumental case of singular and plural nouns were developing.

Gvozdev's diary (1949) is focused on the general linguistic development of his son. His detailed analysis of the material (1961) according to topics focuses on different levels of language (phonology, morphology, syntax, etc.). This approach enables us to follow, among other things, the child's method of acquisition of morphological markers in general and the acquisition of the instrumental case forms in particular.

Gvozdev's aims were to examine how the surrounding linguistic environment influences the development of child speech in general, with specific interest in the acquisition of the grammatical structure of the Russian language, as well as to test and analyze how different sentence types and grammatical categories appear and are formed in language development of a Russian-speaking child. At the same time he

examined different stages of the levels of acquisition, deviations from the standard norms as well as the chronology of the appearance of different categories.

According to Pačesová, Gvozdev's diary "is the richest and the most extensive work, which either solves or suggests a solution for perhaps all the problems facing the investigators in this field" (1968:7). Slobin, however, points out that Gvozdev's classification of sentence types is not always the most useful for other sorts of analysis, e.g., examination according to the principles of transformational grammar, and much extensive work will be needed to reorganize the data for this purpose (Slobin in Smith and Miller 1966:135).

Notwithstanding this objection, we do feel that it is the most extensive pedolinguistic longitudinal study available in Slavic languages, where the developing linguistic competence of a child is projected, studied and analyzed. The phonetic notation of Zhenya's recorded speech, as well as the detailed morphological analysis, followed by the analysis of syntactic patterns constitute together an insightful and valuable presentation of the first nine years of a child's linguistic development.

The overview of the chronological stages starts with sentences. Gvozdev justifies this approach by the fact that a sentence is the fundamental unit through which and by which the grammatical development of a child is accomplished (1961: 159). As the diary, and its analysis, shows, further gradual complexity and differentiation of sentences form the

environment and create the conditions for the formation of different word combinations and grammatical categories.

Gvozdev's analysis of the sentences is divided into two parts. In the first part we have the analysis of different types of sentences in general, in relation to their different semantic functions (declarative, interrogative). Since this phenomenon is often accompanied by change of intonation, this latter topic is also partially discussed in his analysis. In the second part an overview of the sentence frame is given together with its relation to the grammatical configuration and the relationship between the members of the sentence.

The analysis of different parts of speech and the process of their acquisition follows the overview of the sentences. At the same time, the categories related to them are analyzed. The analysis is both semantic as well as morphological, e.g., when talking about the category of case, Gvozdev explains on one hand the meaning as well as the syntactic role the case plays, and, on the other hand, presents different case-endings and the process of formation of the declension types. The overview of the word formation is also analyzed under the heading "Parts of speech".

According to Gvozdev (1961:159), an analysis of individual grammatical categories according to different parts of speech is not only very practical and in correspondence with traditions but is at the same time in agreement with the general sequence of acquisition of these categories, since

these are formed in connection with and depending on the formation of the parts of speech.

Just like Zhenya's phonological development, his grammatical development is also analyzed chronologically, and is based on consecutive two-month periodical assessments. From 3;0,0 to 4;0,0 the child's linguistic development is evaluated every three months, and later on the periods of assesment are even longer. This is due to the fact that the speed of the child's speech development has changed; it has slowed down.

Further, in the second part, after the analysis of syntax and morphology based on age periods, Gvozdev gives the final overview of the acquisition of sentences and parts of speech. In this section the basic principles of acquisition of individual grammatical categories are postulated here by Gvozdev.

3.1. THE ACQUISITION OF MORPHOLOGY: THE EARLY STAGES

Morphological markers start to appear in Zhenya's speech as soon as the MLU reaches 2, at about the age of 1;10. This also applies to the forms of the instrumental case which start to appear around the age of two, or, more precisely, at 1;11,13 (see the examples). At the initial stage, from 2;1 till 2;8, there is a wide range of overregularization of certain inflectional categories; later on they are differentiated according to their gender and also minor declensional categories.

There is one possible instance of the instrumental case used before the age of two: 1;11,15 з'имой (= in winter), and some other similar instances used by Zhenya after the age of two, e.g., 2;7,20 л'етом (= in summer), and 2;8,5 в'есной (= in spring); it is, however, possible that all these cases are simply learned by rote. Therefore, in this thesis ambiguous utterances of this type will be omitted.

All the variants of the instrumental case endings are not acquired at once. Zhenya's acquisition of the morphological, as opposed to the semantic and phonological side of language learning appears to be a very difficult task.

Roughly speaking, there are two stages in the acquisition of the instrumental case forms in Zhenya's linguistic development, and in each of them there is one predominant suffix. During the process of substitution one ending always appears to be the leading one and "pushes out" any other ending of that particular case.

3.2. THE FIRST STAGE: THE ENDING -ом

Among the forms of the instrumental case endings, **the masculine singular ending -ом (unstressed -ъм) appears first** in Zhenya's speech, even though it is a suffix used in Russian only for singular nouns of "hard stem" masculine and neuter gender in the instrumental case, and for masculine and neuter adjectives and modifiers in the prepositional case (see

Appendix II). This means that the frequency of this morphological element may not be relatively very high. However, due to its restricted semantic function, the child associates it with only few meanings, and he may, therefore find it easier to remember. This could contribute to the fact that Zhenya started using the suffix -ом as the first for the instrumental case singular forms.

1;11,13....маком (= с молоком); ('with milk') - the first recorded unambiguous form of the instrumental case

2;1,18.....доз'з'ицкъм (= дождичком); ('with rain')

2;2,2.....л'епцъм (= с хлебцем); ('with bread')

2;3,29.....назом. (= ножом); ('with knife').

3.2.1. Overgeneralization of -ом:

Almost as soon as he started using the masculine forms of the instrumental case, Zhenya begins to **overgeneralize** them by using them with feminine nouns. He mixes one case ending with another within the instrumental case. There are four examples of the instrumental case forms recorded between the age of 2;0 and 2;2, and three out of them are formed analogically. According to Gvozdev, this serves as evidence that the case form did not appear in Zhenya's speech by chance, but was actually acquired through a rule (1961:460).

Among the earlier forms created analogically we find several examples with the ending -ом in words of feminine gender. A special note should be taken that all these cases have

the unstressed -**ъм** ending. This phenomenon will be addressed more closely in chapter V.

2;1,1.....л'ос'иц'към (= ложечкой); ('with a small spoon')

2;1,8.....пл'апъцкъм (= тряпочкой); ('with a napkin')

2;1,11.....мамъцкъм (= мамочкой); ('with mother')

2;2,29.....мамъцкъм (= мамочкой); ('with mother')

2;2,25.....лапатъм (= лопатой); ('with a shovel')

2;4,23.....пальц'към (= палочкой); ('with a stick').

3.2.2. Overgeneralization by preserving the fleeting vowel:

A very important factor that influences the formation of the instrumental case singular, as well as all the other cases, is the stem of the noun, normally occurrent in nominative case singular. It is the most important form of the noun; all the other case forms are produced in relation to it. This is even more important in those cases where the fleeting vowel or/and the stress of the stem influence the analogical creation of certain forms of the instrumental case, which is exactly what happens in Zhenya's language acquisition.

Overgeneralization by preserving the fleeting vowel, which normally drops in all the other cases apart from the nominative (resp. accusative) case in the first declension type of masculine noun, can be considered as an evidence of salience of the respective sound. It is preserved fully when under stress; however, when the stress is on another syllable, it is

still preserved, if only partially. This only points to the fact that stress plays an important role as an element of salience.

On the other hand, it could just as well be that the child learns the words платок, млаток, ветер and перец, as well as the ending -ом separately, and he "constructs" the instrumental case of the words by joining both of these elements; only later on he learns that the fleeting vowel drops. Based on this evidence, Gvozdev emphasizes that in child language, especially at the initial stage, there is a strong tendency to use morphological elements in the same form as they were extracted from other words. This phenomenon occurred frequently during the initial stages of Zhenya's case endings acquisition (1961:463).

2;0,14.....пл'атокъм (= платком); ('with a kerchief')

2;3,9.....мълатокъм (= млатком); ('with a hammer')

3;0,15.....в'ет'ъръм (= ветром); ('with the wind')

3;7,9.....с п'ер'ьцъм. (= с перцем); ('with pepper').

3.2.3. Overgeneralization by preserving the stress on the stem:

2;9,3.....тъпо́ръм (= топором); ('with an ax')

2;9,2.....з бл'и́нъм (= с блином); ('with a pancake').

All of these examples serve as a demonstration that during this period of time the differentiation between the declension types was not yet established. Changes in stress and

dropping of fleeting vowel occur only at a later stage of Zhenya's linguistic development (1961:463).

At the initial stage of Zhenya's acquisition of the grammatical morphemes there are few individual examples when he uses the form of nominative in place of another case:

1;11,1.....ал'иц' вада дуду (= налить воды в дуду); ('to pour water into a pipe')

There are no instances in Gvozdev's diary of using one particular case instead of another at a later stage, specifically, after the age of 2;0. According to Gvozdev this serves as evidence that right at the beginning the cases are acquired as bearers of one certain syntactic meaning, i.e., the child was using them correctly from the syntactic point of view, but he did not have them organized morphologically: they were not grouped under the appropriate paradigms (1961:463).

3.3. THE SECOND STAGE: THE ENDING -ой

The first feminine instrumental case ending -ой (unstressed -ъй) appears in Zhenya's language some few weeks later, precisely at the age of 2;2,18.....мал'иньй (= малиной); ('with a berry'). It comes in at the time when Zhenya is already "comfortable" with the masculine instrumental suffix -ом.

2;2,18.....мал'иньй (= малиной); ('with a berry')

2;2,29.....папъй (= папой); ('with father')

2;4,23.....иголкъй (= иголкой); ('with a needle')

2;7,18.....нагой (= ногой); ('with a leg')

2;7,18.....рукой (= рукой); ('with a hand').

In Russian language the suffix -ой is also found in genitive, dative, and prepositional cases of singular feminine adjectives and special modifiers and surnames, as well as in nominative singular of the masculine adjectives (see Appendix III). The argument is only valid to the extent that endings belonging to different cases and different parts of speech may be confused by the child. However, we should note that adjectives and nouns co-occur in noun phrases, which makes confusion more possible. This information indicates that this morphological element may be more frequent in the adult language than the morphological ending -ом, however, due to the large variety of functions it performs, its semantics may not seem definite to the child, moving thus the process of its acquisition to a later stage of the child's linguistic development.

This challenges Gvozdev's theory that frequency is the most important factor that influences the selection of a particular ending for a certain grammatical category. According to him, frequency, in general, influences language acquisition (1961:465). He mentions, apart from the frequency factor, also the factor of the semantic function of the instrumental noun phrase. The latter will be discussed later.

However, to get a clearer picture of the role of frequency, one has to consider the relative frequency of gender of the nouns that Zhenya was exposed to in his environment

during the time he was acquiring the forms of the instrumental case. If we decide to take into consideration only the nouns that are recorded in Zhenya's speech during the crucial period from 1;11 to 3;0 the picture may not be clear enough because the child might have selected only some nouns from his environment for speech, and omitted the others. This may be the reason why, in this case, the factor of adult frequency cannot function as an absolute criterion for selection of certain morphological endings.

3.3.1. Overregularization of -ой

However, almost immediately when the child seizes upon the newly acquired suffix -ой, he applies the principle over a wide range of nouns. He begins to use it analogically as an instrumental case ending for words of masculine gender:

2;5,7.....за су́пъй (= за супом); ('eating soup')

2;6,25.....път само́дой (= под комодом); ('under a chest of drawers').

Further, the overgeneralization also extends to some nouns of neuter gender which in Zhenya's speech also acquire feminine endings.

2;5,22.....йа́блъкъй (= яблоком); ('with an apple')

2;5,19.....вар'е́нйий (= вареньем); ('with jam')

2;7,15.....с ако́шьч'къй (= с окошечком); ('with a small window').

In all five examples the stress falls on the stem of the word. It is interesting and, perhaps, useful to examine the role of stress in the acquisition of inflectional forms and their overgeneralization.

The replacement of one group of endings with another within the same case and gender depends, according to Gvozdev, on the quantitative relationship between them (1961:465), e.g., the quantitatively predominant instrumental singular in feminine nouns -ой overtakes the less frequent ending -ью; the period during which these forms appeared in Zhenya's language falls, however, beyond the scope of this thesis.

What influences the child to sieze upon one specific suffix and use it even in those instances where it is not grammatically or phonologically acceptable? Is it the frequency, or the salience, or the semantic clarity of the inflection, or, perhaps, all of them? These questions are addressed in chapter IV.

3.4. THE PLURAL FORMS

According to Steinfeldt's (1963) analysis, the plural forms of nouns are far less frequent than the forms in singular (see Appendix IV). In Zhenya's speech the plural instrumental form endings -ами (-ьм'и) are found only after the age of 2;2. Despite the fact that the endings are not all correct in Zhenya's speech it is difficult to study them and/or test them on the basis of any theory because their occurrences are very few.

2;2,22.....гурцами (= огурцами); ('with cucumbers')

2;5,3.....гр'ибам'и (= грибами); ('with mushrooms')

2;6,7.....зъ цв'итам'и (= за цветами); ('to pluck flowers')

2;11,8.....зупк'им'и (= зубками); ('with small teeth')

3;0,15.....калоцъм'и (= кол'цами); ('with rings').

3.5. THE SEMANTIC FUNCTION OF THE INSTRUMENTAL NOUN PHRASE

The first recorded instances of Zhenya's instrumental case forms, whether without or with preposition, are in semantic accordance with the usage in adult Russian. At the same time, Zhenya's recorded speech shows that **the meanings of his cases are more concrete than those found in adult language;** the secondary meanings of the cases are found less often and their acquisition usually takes a longer time.

3.5.1. Instrumental case without preposition indicating the instrument of action:

2;0,14.....пл'атокъм (= платком);('with cloth')

2;1,11.....кус'иц' буду л'ос'иц'към (= кусат' буду ложечкой); ('I will eat with spoon')

2;1,18.....доз'з'ицкъм мацила (= дождичком мочила); (lit., 'was wetting with rain', i.e., 'was drizzling')

2;3,9.....мълатокъм стуц'ал (= молотком стучал); ('was knocking with a hammer')

2;6,29.....водой забрыж'ж'у (= водой забрыжжу);('I will dirty with water').

However, during some few months (approximately the five months: from 1;11 till 2;4) we notice omission of the appropriate prepositions in other constructions, as illustrated below. According to Slobin, this creates the impression that the child understands the semantic distinctions between different cases (in Smith and Miller 1966:137) before he begins to use the declensions. More information about this phenomenon will be given later in this chapter.

3.5.2. Instrumental indicating the mutuality of action (preposition ѕ is omitted):

2;1,11..... гл'айу мамоц'към (= играю с мамочкой); ('I am playing with mother')

2;2,29.....пайду мамьц'към, папъй (= пойду с мамочкой, с папой); (I will go with mother and with father').

The preposition ѕ starts to appear in this function from the age of 2;4:

2;4,6.....с папъй пайду (= с папой пойду); ('I will go with father')

2;4,8.....с рун'ьц'къй[1]

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1 Gvozdev gives no gloss for this form.

3.5.3. Instrumental of accompaniment (the preposition с is omitted): only few instances of this type of instrumental case were recorded in Gvozdev's diary before the age of 4;0.

1;11,13 .....дай маком (= дай с молоком); ('give me [something/it]with milk')

2;2,2.....дай вайен'ца л'епцъм (= дай вареньца с хлепцем); ('give me bread and jam')

2;7,9.....зайем мълач'ком (=заем молочком); ('we will eat [something/it] with milk').

The preposition starts to appear after the age of 2;5:

2;5,19.....п'йот с вар'ен'йий (= пьет с вареньем); ('he drinks something/it with jam').

3.5.4. The instrumental indicating the goal of action (the preposition за is omitted):

2;1,24.....пасла маком (= пошла за молоком); ('she went to buy milk')

2; 2,24.....мал'иньй пасла (= за малиной пошла); ('she went to pick some berries')

2;2,22.....пайд'ом гурцами (= пойдем за огурцами); ('we will go to pick some cucumbers').

The prepositon за starts to appear after 2;4:

2;4,5..... пайду за мамъй (= пойду за мамой); ('I will go to meet mother')

2;4,6.....за ласаткъй пасол (= за лошадкой пошел); ('he went to see the horse')

2;4,24.....пайду за вад'иц'къй (= пойду за водичкой); ('I will go and get some water')

2;4,30.....пайд'ом за картоскъй (= пойдем за картошкой); ('we will go and get some potatoes').

3.5.5. Only once **the temporal meaning of the instrumental case with the preposition** за appeared in Gvozdev's diary:

2;5,18.....за б'едъм н'и йест (= за обедом не ест); ('he does not eat during lunch').

3.5.6. The prepositions под **and** над, **both indicating place**, were acquired relatively later and there are no examples of instances when they were omitted:

2;6,25.....път камодъй л'изыт (=под комодом лежит); ('is lying under a chest of drawers')

2;6.29.....пат крават'ьй падм'етла (=под кроватью подметла); ('she swept under the bed')

2;8,4.....пъд машынъй (=под машиной); ('under the car')

3;5,22.....нъд ган'ом д'иржат' (=над огнем держать); ('to hold above the fire').

3.5.7. In rare cases the form of **the instrumental indicates indirect object:**

2;7,19.....зан'имайус' д'елъм (=занимаюсь делом); ('I am doing something')

With respect to the omission of prepositions, Gvozdev's argument is that since the child has entered into the "two-word sentence" stage and he is using different case endings for different cases, he feels that the endings are sufficient enough to carry the information that the morphemes encode. The synthetic means of expressing grammatical meanings are primary for the Russian language (Gvozdev 1961:393). At the same time, the omission of prepositions contributes to the unclear semantic function of the prepositional noun phrases; and later on, their appearance contributes to the process of differentiation of these meanings (1961:462).

To summarize the argument, it is the unclear semantic function of the instrumental noun phrases with prepositions that delays their acquisition.

Basically, as it appears, the prepositional functions of the instrumental case are acquired by Zhenya much later than the non-prepositional ones. Both the evidence from the diary, as well as Gvozdev's analysis indicate that almost all the case forms without prepositions are acquired by Zhenya before the age of 2;0 (1961:461). Similar observations were reported in

works of other researchers (Pačesová 1979:117-118; Voznyj 1967:205).

This phenomenon, according to Gvozdev, can be justified by the fact that in the Russian language the endings are compulsory in every case when we are dealing with nouns; prepositional phrases are however, not of such frequent occurrence as noun phrases as a whole, and this fact may lead to omission of prepositions in such places where they are supposed to be (1961:463). In short, the child may consider the preposition as a redundant element in language acquisition. It is important to point out that due to the fact that they are different from the nouns in form, as well as potentially isolated from them in the sentence prepositions should be acquired more easily than endings, but they are not. Gvozdev's argument is that this phenomenon serves as an evidence that the most important factor in linguistic acquisition is not the form of the morphological elements of the language, but their function in the linguistic structure which is connected with the semantics (Gvozdev 1961:394).

It should be noted that the full acquisition of the instrumental case forms through learning morphology and morphophonemics goes on for very much longer and is attained by Zhenya only after the age of seven years. The combination of different declensional suffixes and categories combined with stress and sound alternation seems to be a task that is very difficult for him.

CHAPTER FOUR: OHNESORG

4.0. PREVIOUS WORK

Questions related to the development of child language have a very long tradition on the territory of present Czechoslovakia, and go as far back as to the Middle Ages when the work of the Moravian scholar Ján Amos Komenský (1592-1670) was the primary source of methodological principles for teaching languages in different European countries. Up to the present day many of his books serve as a valuable source of information, as well as a source of reference for many scholars.

4.1. OHNESORG'S STUDY

Karel Ohnesorg's study Fonologická studie dětské řeči (1947) is a pioneering work in the field of the phonological development of child language in Czechoslovakia. It contains a detailed description of phonological development of his own son (Karel)'s speech, systematically recorded from the period of his first cry until the time when the production of all the phonological elements of the spoken language was fully mastered. Among other things, Ohnesorg observed and researched the child's intonational patterns, thus touching the question of intonational universality. According to Pačesová, Ohnesorg's work is a "valuable contribution to the knowledge of

speech development in Czech-speaking children" (Pačesová 1968:7).

Briefly, the analysis began from a systematic observation of a healthy Czech boy's speech from his birth until the age at which, from the phonological point of view, his speech development was completed (around the age of 4;0,0). It is an extensive study based on rich and carefully gathered material. His first speech was recorded in a detailed diary about his development; later on individual words and expressions were recorded phonetically and placed alphabetically under the appropriate column in the dictionary.

Further, this work is an important and valuable addition to the area of child language in general because of its 1920-word dictionary describing individual stages of different phonetic realizations of these words. Because of its form, the diary not only enables us to see and examine the linguistic development in the area of phonology, but also provides an evidence of productive vocabulary growth, since phonological composition is one of the factors which influences word acquisition.

Examining Karel's vocabulary, based on the material available from Ohnesorg's diary of his linguistic development, one cannot but notice that during the period between 0;0 till 4;0 - the time when he was acquiring the nominal instrumental case forms, among other grammatical morphemes, - the grammatical gender of majority of the nouns recorded here shows a predominance of masculine nouns. This is a factor

which could have contributed to the acquisition of masculine instrumental forms earlier than the feminine forms, but (see below) this did not occur. However, to substantiate an idea like this we will need reliable statistics about Czech "kidditalk", and Adult Czech, both Standard and the Colloquial. Unfortunately, only the Adult Standard Czech language statistics were available for us, and they will be used in this thesis.

The available statistics about the frequency of nominal cases in adult Czech informs us that the instrumental case is not among the most frequent cases. (J. Jelínek, J. V. Bečka, M. Těšitelová 1961:93), (see App.VI). This factor could have influenced the late acquisition of the instrumental case endings by Karel.

4.2. OUR ANALYSIS

The first instrumental case forms appear in Karel's vocabulary at the time when his MLU reaches two, which was few months earlier than it was in Zhenya's case.

1;5,26.....autem (= autem); ('by car')

1;9,14.....latem (= vlakem); ('by train')

1;9,17.....elou (= električkou); ('by tram').

Since all three above mentioned instances can be both the instrumental case forms of nouns and adverbial forms of manner, and therefore considered ambiguous, we will not take account of them in our discussion and conclusions.

There are no recorded cases of the analogical creation of the instrumental case forms due to movable stress of words in Ohnesorg's diary, as happened in the case of Zhenya Gvozdev. Right from the beginning of his linguistic development the main word stress in Karel's speech was developing on the first syllable, which is in correspondence with the Standard Czech language.

Since Karel's processes and stages of learning of the instrumental case endings do not follow exactly the same pattern as in Zhenya's linguistic development, and because overregularizations are not as rampant, we decided to project it through a slightly different structure, analyzing the recorded instrumental case forms first according to the declensional categories they belong to, and later following the developmental stages of different instrumental prepositional phrases, where we can clearly distinguish three major periods. In Chapter V conclusions will be drawn on the basis of comparative study, following the three hypotheses by Gvozdev which are described in Chapter III.

As has been mentioned earlier, right from the first examples of the instrumental case forms (1;10,17), both the masculine ending **-em** and the feminine ending **-ou** are equally represented:

1;10,17.....nánou (= Máňou)[1]; ('with Máňa') - this is the first unambiguous form of the instrumental case used by Karel in his speech

1;11,27.....haďem (= hadrem); ('with a wash cloth')

1;10,14.....[s] dedem[2] (= s dědou);('with grandfather')

1;10,19.....[s] mamou (= s mámou); ('with mother')

1;11,7.....Lala [si] haĺe [s] lampou (= Lála si hraje s lampou); ('Lála is playing with the lamp') [3]

1;11,20.....L. de ulí tátom (= L. jde pro uhlí s tátou); ('Lala is going with his father to get some coal')

1;11,21.....L. de nápup mámou (= Lála jde na nákup s mámou); ('Lála is going shopping with mother')

2;0,17.....[s] medítem (= s medvítkem); ('with a teddy-bear')

2;0,21.....tátem pintat ne (= nechci spinkat s tátou); ('I do not want to sleep with father').

4.3. THE MASCULINE NOUNS

As all the above cited examples reveal, directly from the first unambiguous masculine form of the instrumental case (1;11,27), examples of the instrumental singular endings **-e m**

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[1] Nána is a pet name in Czech for Marie.

[2] [] - this type of brackets is used in Ohnesorg's diary to indicate the words that were omitted in Karel's speech .

[3] "Lála" is a pet name used commonly in Czech for Karel

of masculine nouns, that have zero ending in the nominative case singular, are all free from errors in Karel's vocabulary.

1;11,27.....hadèm (= hadrem); ('with a wash cloth')

2;0,17.....[s] medítem (= s medvítkem); ('with a teddy-bear')

The same situation continues during the second and third stages of Karel's linguistic development:

2;8,10.....s t'im toťálem (= s tím kočárem); ('with that push-chair')

2;11,25.....jedu [s] chlochodílem (= jedu s krokodílem); ('I am taking a ride with a crocodile').

4.3.1. Overgeneralization of -em

As the examples above show, we do, however, notice what may be the overgeneralization of this productive masculine instrumental case ending **-e m** on the feminine nouns. This happens only with two nouns, namely, 'táta', and 'děda' which are inherently masculine, but, because of their form in the nominative case singular, they belong grammatically to the feminine declensional type.

1;10,14.....[s] dedem (= s dědou);('with grandfather')

1;11,20.....L. de ulí tátom (= L. jde pro uhlí s tátou);

('Lala is going with his father to get some coal')

2;0,1.....tátem (= s tátou); ('with father').

All these forms are, however, later replaced by the child with diminutive forms of these nouns which end in consonants in the nominative case of singular (tatínek, tatíček; dědeček,

dedousek), making it thus grammatically easier for the child to produce the instrumental case forms.

In Ohnesorg's diary there are no examples of masculine instrumental ending **-em** being used for instances of inherently feminine nouns. The question which naturally arises here is, whether it is the "salience", or some other factor(s) that influence the overregularization of this ending. It could just as well be that Karel was learning the inherent gender at that time because the first correct forms of personal pronouns 'on' ('he') and 'ona' ('she') are recorded only after the age of 2;3; no incorrect forms, however, are recorded prior to this age.

4.4. FEMININE NOUNS

In Karel's acquisition of the instrumental case forms there are no examples of overgeneralization of the masculine endings on the nouns of inherently feminine gender.

1;10,17.....nánou (= Máňou); ('with Máňa')

1;10,19..... [s] mamou (= s mámou); ('with mother')

1;11,7.....L.[si] hale [s] lampou (= Lála si hraje s lampou); ('Lála is playing with the lamp')

1;11,21.....L.de nápup mámou (= Lála jde na nákup s mámou); ('Lála is going to do shopping with mother')

2;1,13.....[z] babintou (= s babinkou); ('with grandmother')

2;2,29.....potitoftou (= pod Klikofkou); ('at Klikofka')[1]

2;9,4.....pochlitoftou (= pod Klikofkou); ('at Klikofka')

2;8,19.....mám pijít s Apich'tou (= mám přijít s Apičkou); ('Do I have to come with Apichka').

4.4.1. Overgeneralization of -ou

Yet another example of overgeneralization of one ending on another is found in the category of feminine nouns, where, the historically "i-stem" noun is given the ending of the "a-stem" noun. This, however, occurred only once in Karel's speech:

2;4,26.....holou (= holí); ('with a stick')

Overgeneralization of this type can be attributed to the factor of frequency of occurrence in the adult language, where the percentual occurrence of the "a-stem" nouns is more than three times higher than any other declensional category in the feminine gender (Jelínek, Bečka, Těšitelová 1961:92). The correct form of the noun appears in Karels speech two weeks later:

2;5,8.....hulí (= holí); ('with a stick')

4.5. THE NEUTER NOUNS

The instrumental case endings of neuter nouns, just like those of masculine nouns, are all produced correctly in Karel's speech right from the beginning.

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1 Klikofka is a name of a Prague district.

2;4,9.....[s] vajít'em (= s vajíčkem); ('with an egg')

2;4,24.....vítem (= víkem); ('with a bottle cap')

2;6,7.....umej ch'e mejlem (= umy se mydlem); ('wash yourself with soap')

2;6,10.....ch'álem (= sádlem); ('with pork fat')

2;6,13.....ch't'im mách'em (= s tím máslem'); ('with butter')

2;7,7.....umil ch'em ch'e mejhlem (= umyl sem se mydlem); ('I washed myself with soap')

2;8,20.....z dovolenim (= s dovolením); ('excuse me, please')[1]

2;10,27....mejlem ne (= mydlem ne); ('not with soap')

3;1,10.....pod víkem (= pod víkem); ('under the bottle cap').

4.6. THE PLURAL FORMS

In plural forms, none of the frequent case endings of the adult Czech language, which are **- y / i** and **- m i** (see De Bray, 1980:62-71), is being picked up by Karel as the "leading one". Considering the fact that when acquiring the nominal instrumental case forms Karel overgeneralizes only in plural, we decided to provide information about the semantic ambiguity of the **- y / - i** plural instrumental ending, since it is the most frequent instrumental ending in plural (see Jelínek, Bečka, Těšitelová, 1961:92); see Appendix VII.

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1 Used as a polite request to pass through a crowd, etc.

The ending **- y / - i** is found, apart from the instrumental case, in four other plural cases of masculine nouns. Its complex semantic function may be the reason why Karel is apparently trying to avoid using it in his speech. Instead, we find the **- m a** ending overgeneralized for all instrumental case forms of the plural nouns, irrespective of their gender. It could be the factor of frequency that plays an important role here since this ending is used very frequently as ending of instrumental plural of nouns in the Central Czech dialect, with Prague as its center (De Bray,1980:46):

2;7,19.....puch'tama (colloq. = prstama, stand. = prsty); ('with fingers')

2;9,3.....z lusama (colloq.= s Rusama, stand. = s Rusy); ('with Russians')

2;9,5.....to s t'ema višniškama (colloq.= to s těma višničkama, stand. = to s těmi višničkami); ('that one with the cherries')

2;10,3.....hlaštama (colloq. = hračkama, stand. =hračkami); ('with toys')

3;0,9.....veslama (colloq. = veslama, stand. = vesly); ('with oars')

3;0,14.....z napináškama (colloq. = s napináčkama, stand. = s napináčkami); ('with cloth pins')

3;1,7.....s kaštanama (colloq. = s kaštanama, stand. = s kaštany); ('with chestnuts')

3;2,2.....s kuličkama (coloq. s kuličkama, stand. = s kuličkami); ('with marbles')

Dual nouns, like, 2;7,22.....dez'ma (= za dveřma), 3;1,18.....klešťema; and 3;2,8.....lukavicema will not be analyzed in this work because they are not considered to be a productive group of nouns, as well as they are only very few of them in total recorded in Ohnesorg's diary.

Further, we notice a large number of examples where the appropriate instrumental case preposition is omitted. The forms, where the preposition **s** was omitted, will be analyzed next.

4.7. INSTRUMENTAL PREPOSITIONAL PHRASES

Three stages can be seen in the acquisition of the instrumental prepositional phrases:

4.7.1. The preposition s

At the initial stage of the acquisition of the instrumental prepositional phrases with the preposition **s**, which is the period from 1;10,14 till 2;6,10, this preposition was fully omitted in all the recorded cases. During this time it was mostly the case endings that served as the main indicator of the instrumental case in Karel's speech; in a few instances word-order was also involved.

1;10,14.....[s] dedem (= s dědou);('with grandfather')

1;10,19.....[s] mamou (= s mámou); ('with mother')

1;11,7.....Lala [si] hale [s] lampou (= Lála si hraje s lampou); ('Lála is playing with the lamp')

1;11,20.....Lala de uhlí tátom (= L. jde pro uhlí s tátou); ('Lála is going with his father to get some coal')

1;11,21.....Lala de nápup mámou (= Lála jde na nákup s mámou); ('Lála is going shopping with mother')

2;0,17.....[s] medítem (= s medvítkem); ('with a teddy-bear')

2;0,212.....tátem pintat ne (=nechci spinkat s tátou); ('I do not want to sleep with father')

2;1,2.....[s] mátem (= s mákem); ('with poppy seeds')

2;1,3.....[z] babintou (= s babinkou); ('with grandmother')

2;2,17.....tenity vomátou (= knedlíky s vomáčkou); ('dumplings with sauce')

2;6,10.....ch'álem (= se sádlem); ('with pork fat').

The first attempts to pronounce the preposition s are recorded at about the time when he was trying to pronounce the sound [s], and they are represented by substitutions of this sound; in the case of the instrumental case preposition **s** it is the sound [x']:

2;6,13.....ch' t'im mách'em (= s tím máslem); ('with that butter').

No other instances of the instrumental case preposition **s** substitutions were found.

Coincidentally, this is the sound used for most of the substituted [s] sounds in Karel's language at the initial, medial, and final positions in the words he pronounced at that time:

2;5,6.....poch'lehňí (= poslední); ('the last one')

2;6,7.....ch'e (= se); ('self')

2;6,10.....ch'tejda (= strejda); ('uncle')

2;6,27.....noch' (= nos); ('nose').

Of interest is the observation of identical substitutions, found in the case of the genitive case preposition **z**, where it is pronounced as [s], which occured approximately at the same time:

2;6,12.....u teti ch' t'elnoch'it' (= u tety z Černošic) [u tety s Černošic]; ('at the house of the auntie from Černošice')

2;7,22.....ch'toho tolejbus'u (=z toho trolejbusu) [s toho trolejbusu]; ('from that trolleybus').

The stage of transition, when he was using the preposition sometimes and sometimes omitting it, lasted in Karel's linguistic development for the period from 2;6,13 till 2;9,28.

2;6,13.....ch' t'im mách'em (= s tím máslem); ('with that butter')

2;8,10.....s t'im toťálem (= s tím kočárem); ('with that push-chair')

2;8,12.....chod'im s punšotama (colloq.= chodím s punčochama, stand.= chodím s punčochami); ('I am walking, wearing only my socks')

2;8,19.....mam pijit s Apich'tou[1] (= mám přijít s Apičkou); ('Do I have to come with Apichka')

2;9,5.....to s těma višništama (colloq. = to s těma isnickama, stand. = to s těmi višničkami); (that one with the cherries)

2;9,28.....budu spintat [s] mámou (= budu spinkat s mámou); ('I will be sleeping with mother')

2;10;13.....z dolejší babištou (=s dolejší babičkou); ('with the grandmother that lives down the street')

2;10,13.....z houbištama (colloq. = s houbičkama,stand. = s houbičkami); ('with little mushrooms')

2;11,3.....souto adlesi (=s touto adresí); ('with this address')

2;11,25.....jedu [s] chlochodílem (=jedu s krokodílem); ('I am taking a ride with a crocodile')

The sound [s] appears first in Karel's speech at the age of 2;7,2 in the word "sám" = 'alone'. It might have been, however, accidental, because it took Karel some few weeks more before he was able to articulate it correctly in majority of words. This observation leads to the assumption that Karel's late acquisition of the instrumental case forms with the preposition **s** may be partially due to the slow process of his phonological development, in addition to the fact that non-syllabic prepositions, as a group, proved difficult for him.

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[1] "Apich'ka" is a pet name used in Ohnesorg's family for Karel's sister Marie.

The instrumental case forms with the preposition **s** is **fully acquired** only after the age of 3;0,0, when Karel starts using both the ending as well as the preposition:

3;0,28.....z voňafkou (= s voňafkou); ('with perfume')

3;0,14.....z napináškama (colloq. = s napináčkama, stand. = s napináčky); ('with clothes pins')

3;1,5.....s tím budíkem; (= s tím budíkem); ('with that larm clock')

3;1,7.....s kaštanama (colloq. = s kaštanama, stand. = s kaštany); ('with chestnuts')

3;1,13.....z batelkou (= s baterkou); ('with a torch')

3;1,17.....s klapkama (colloq. = s klapkama, stand. = s klapkami); ('with buttons')

3;2,2.....s kuličkama; (colloq. = s kuličkama, stand. = s kuličkami); ('with marbles')

3;2,11.....z vajčkama (colloq. = s vajíčkama, stand. = s vajíčky); ('with eggs').

4.7.2. The prepositions pod, nad, pred, za.

If we look at the acquisition of other **instrumental case forms with different prepositions**, like **pod, nad, pred, za**, all indicating place, we find that they are acquired relatively early: the first form with the preposition **pod** was pronounced by Karel at the age of 2;2,29, which is earlier than than the forms with preposition **s** and there are no examples of recorded instances when they are omitted. However, it took

Karel almost one year before he was able to articulate them without any error:

2;2,29.....potitoftou (= pod Klikofkou); ('at Klikofka')

2;4,18.....po tamoftou (= pod Klamofkou); ('at Klamofka')[1]

2;9,4.....pochlitoftou (= pod Klikofkou); ('at Klikofka')

2;10,13.....poch tanapem (= pod kanapem); ('under the cover')

2;11,13.....poh vodou, pote vodou (= pod vodou); ('under the water')

2;11,17.....pech domem (= před domem); ('in front of the house')

3;1,12.....pod sedátkem; (= pod sedátkem); ('under the seat')

3;1,14.....za balátem (= za barákem); ('behind the house')

3;2,6.....po klikofkou, pot klikofkou (= pod Klikofkou); ('at Klikofka').

Examining the acquisition of all the other instrumental case forms with prepositions one cannot but notice that it is taking place around the same time as the acquisition of the preposition **s**. This was around the time when Karel was undergoing the transitional stage, when he was sometimes using the preposition **s** and sometimes not. Of interest is the

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1 Klamofka is a name of a Prague district.

observation that in majority of the cases Karel was able to pronounce at least the vowel sound of the above mentioned prepositions

If we compare the acquisition of other nonsyllabic, as opposed to syllabic, prepositions that are used with other cases, at this period of time, we will come to the same conclusion: Karel was having problems pronouncing mostly nonsyllabic prepositions:

2;3,19.....[v] tomole (= v komore); ('in the store')

2;6,10.....telefonuju [z] butti (= telefonuji z budki); ('I am calling from the booth')

2;8,24.....[k] svatímu (=k svatímu); ('to the Saint')

2;9,2.....[k] mušičce (=k mušičce); ('to the small fly')

1;11,25.....o toli (= do školy); ('to school')

1;11,25.....e tole (= ve škole); ('in school')

2;0,22.....do vani; (= do vani); ('into the bath tub')

2;4,6.....po valt'e (= po válce); ('after the war')

2;4,17.....det' po ch'odofku (=jdeš pro sodofku); ('are you going to get some fruit punch')

2;6,7.....potom píde [ke] mne (= potom příjde ke mně); ('then he will come to me')

2;6,12.....do buchti (= do budki); ('into the booth').

A careful examination of the available information should enable us to determine the basis of the phenomenon of

omitted prepositions in the instrumental case, and, perhaps, also in the other case forms. The examples cited above represent instances of absent/present prepositions of different case forms; they, however, constitute only a sample of the total number of relevant forms. Our intention is to point out at the fact, that right from the time when Karel's MLU was reaching 2 (around the age of 1;11), he was aware of the existence, and maybe the importance of prepositions in the adult language, but, because his process of acquisition of some phonemes was very slow and difficult, this also influenced the course of development in the area of his morphological "maturity".

4.8. THE SEMANTIC FUNCTION OF THE INSTRUMENTAL NOUN PHRASES

Right from the beginning when the first instrumental noun-phrase forms appeared in Karel's speech, both with and without prepositions, they were used and functioned correspondingly to the semantic rules of Standard Czech.

4.8.1. Instrumental case noun phrase indicating the instrument of action:

1;11,7.....L.[si] hal̀e [s] lampou (= Lála si hraje s lampou); ('Lála is playing with the lamp')

2;6,7.....umej ch'e mejlem (= umy se mydlem); ('wash yourself with soap')

2;7,7... .....umil ch'em ch'e mejhlem (= umyl sem se mydlem); ('I washed myself with soap')

3;0,28.....z voňafkou (= s voňafkou); ('with perfume')

3;0,14.....z napináškama (colloq. = s napináčkama, stand. = s napináčky); ('with clothes pins')

3;1,5.....s ťim budíkem; (= s tím budíkem); ('with that alarm clock')

3;1,7.....s kaštanama (colloq. = s kaštanama, stand. = s kaštany); ('with chestnuts')

3;1,13.....z batelkou (= s baterkou); ('with a torch')

3;1,17.....s klapkama (colloq. = s klapkama, stand. = s klapkami); ('with buttons')

3;2,2.....s kuličkama; (colloq. = s kuličkama, stand. = s kuličkami); ('with marbles')

3;2,11.....z vajčkama (colloq. = s vajíčkama, stand. = s vajíčky); ('with eggs').

4.8.2. Instrumental case noun phrase indicating the mutuality of action:

1;11,20.....L. de uhlí tátom (= L. jde pro uhlí s tátou); ('Lála is going with his father to get some coal')

1;11,21.....L.de nápup mámou (= Lála jde na nákup s mámou); ('Lála is going shopping with mother')

2;0,21.....tátem pintat ne (= nechci spinkat s tátou); ('I do not want to sleep with father')

2;8,19.....mam pijit s Apich'tou (= mám přijít s Apičkou); ('Do I have to come with Apichka')

2;9,28.....budu spintat [s] mámou (= budu spinkat s mámou); ('I will be sleeping with mother')

2;10;13.....z dolejší babištou (=s dolejší babičkou); ('with the grandmother that lives down the street').

4.8.3. Instrumental case with prepositions pod, za, and pred indicating the place of action

2;2,29.....potitoftou (= pod Klikofkou); ('at Klikofka')

2;3,16.....za morem; (= za mořem); ('behind the sea')

2;4,18.....po tamoftou (= pod Klamofkou); ('at Klamofka')

2;9,4.....pochlitoftou (= pod Klikofkou); ('at Klikofka')

2;10,13.....poch tanapem (= pod kanapem); ('under the cover')

2;11,13.....poh vodou, pote vodou (= pod vodou); ('under the water')

2;11,17.....pech domem (= před domem); ('in front of the house')

3;1,12.....pod sedátkem; (= pod sedátkem); ('under the seat')

3;1,14.....za balátem (= za barákem); ('behind the house')

3;2,6.....po klikofkou, pot klikofkou (= pod Klikofkou); ('at Klikofka').

We can see from the examples above that all the case forms used by Karel during the examined period of time have only concrete meanings. They indicate the instrument of action, the mutuality of action, the accompaniment, the place of

action, and the goal of action. This pattern corresponds with the findings from Gvozdev's diary about Zhenya's acquisition of the instrumental case forms.

There have been many theories developed on acquisition of semantic relations, in order to specify those situations which children can conceive and observe. Wales (1986), e.g., suggests that temporal expressions are derived from spatial enterpretations, meaning, the child acquires the noun phrases marking spatial contrasts prior to the ones expressing temporal concepts. These developmental stages basically correspond to the patterns of acquisition of the instrumental case forms demonstrated by both examined children.

Importantly, there were no instances found in the examined data, where Karel used the instrumental case form in place of another particular case form, or, vice versa. We do, however have few individual instances of two nouns (bába and děda), where the form of the vocative case is used in the function of nominative case, and one instance of wrong semantic use of the prepositional noun phrase (with the noun "auto") in the sentences:

3;2,4.....onesolk kája patsí na auto (= Ohnesorg Kája patří do auta); ('Karel Ohnesorg is supposed to be inside the car')

1;3,27.....babu! (= babi!); ('grandmother!') this vocative case later became nominative:

1;11,10.....babu loupa banoni (= bába loupá brambory); ('grandmother is peeling the potatoes') - This was,

incidentally, the first sentence pronounced by Karel without any pause between the words.

2;10,10.....detu! (= dedo!), ('grandfather') - perhaps, extended from babu.

All the other forms of the above mentioned cases were used appropriately, which may be an indication that the child understood the semantic differences among individual cases prior to his subclassification of the nouns in the language.

All the above gathered examples constitute evidence that, despite a relatively slow phonological developmental process, Karel's morphological development was a steady one, having its own structure. The available material, however, may not be an ideal source of information for research in morphology, since the author's main intention was to project the phonological development of a child.

Another obstacle may be in the recorded examples which do not necessarily carry the meaning and function that were assigned to them by the author. Another unanswered question is, whether all the possible forms of instrumental case were recorded by Ohnesorg. Nevertheless, all the available examples constitute evidence that acquisition of morphological markers in general, and the instrumental case forms in particular was for Karel a long, but not a difficult process.

CHAPTER FIVE: ANALYSIS AND CONCLUSIONS

5.0. GENERAL

Having reviewed the acquisition of the instrumental case forms in the speech development of two children speaking two different Slavic languages, based on the records available from the diaries about their linguistic development, one is left with the impression that there has been very little research done in this area, compared to other areas of language acquisition, namely, phonology and syntax, in the field of acquisition of morphology in general, and Slavic morphological structure in particular.

Most of the work done in this field is theoretical in nature; only very few diary studies are available, many of them providing data that are very difficult to use for any comparative research. We strongly feel that research based upon testing a small number of children, or, even worse, one child, will not give us sufficient evidence to make claims and draw conclusions about universal aspects of the process of learning linguistic structures.

Nevertheless, we have tried to test three of Gvozdev's hypotheses in the area of the acquisition of Czech as a native language, with the aim of seeing whether the ways and strategies used were identical, similar, or different. We chose

to consider Ohnesorg's diary, and not Pačesová's because, among other things, his diary is better organized, and the exact dates for all the forms are available. Pačesová's analyses, on the other hand, are very interesting, and are provided with more supportive material, but her data are very difficult to use, because of the lack of exact dates and absence of glosses, to name just two problems.

With respect to our testing of Gvozdev's three hypotheses, a number of conclusions can be made from this study.

5.1. HYPOTHESIS (1):

The cases are acquired at the initial stage of acquisition of morphological endings as the bearers of certain syntactic meanings i.e., the children do not use one case instead of the other, e.g. prepositional instead of instrumental, but very often and for a very long time they mix different case endings within a case.

In Zhenya's linguistic development **different cases are acquired as bearers of certain syntactic meanings**, i.e., the child understands the semantics of different syntactic relationships almost right from the time when his MLU reaches two. The nuances of the Slavic morphophonemic rules, however, are acquired by him at a much later stage: for a very long time

he mixes case endings within a case, overgeneralizing both masculine and feminine endings, each of them for a duration of a certain period of time (see Chapter III).

As the examples from Ohnesorg's diary show, right from the first instances of the instrumental-noun phrases we do not see, apart from a few individual forms, any systematic incorrect use or function of these forms according to the semantic rules of Standard Czech (see Chapter IV). This finding, so far, corresponds with the first part of Gvozdev's hypothesis. Examining the second part of the hypothesis, we discover, though, that there are some dissimilarities.

The evidence from Ohnesorg's diary shows that, though, he did overgeneralize both masculine and feminine endings, Karel did so only in a very few individual cases: the masculine ending **-em** was used by him only for few nouns that are grammatically feminine (see 5.3.1); overgeneralization of the feminine ending **-ou** is recorded only once in Ohnesorg's diary and it is based on the frequency of occurrence of the declensional type in the adult language.

5.2. HYPOTHESIS (2):

The synthetic means of expressing grammatical meanings is primary, i.e., the child feels that the suffixes and not the prepositions are sufficient enough to express the meaning.

Considering the matter of omitted prepositions in the instrumental noun phrases, we can conclude that the evidence gathered from the two examined diaries, as well as the documentation from other sources (see chapter II), support the conclusion that before the age of three years the children may feel that at least some prepositions are a redundant element of speech. This, however, changes later, due to the influence of their linguistic environment.

A detailed study of both diaries shows that in the speech of both examined children **the synthetic means of expressing grammatical meanings is primary.** For a long period of time the suffixes of the instrumental case are sufficient enough for both children to express the semantic meaning of the required forms. Both Ohnesorg and Gvozdev agree that children consider prepositions as redundant elements in their speech when trying to express semantic functions, and the data support them.

Prepositions start to appear in Zhenya's language after the age of 2;4, but Karel's situation was to some extent different due to the fact that his phonological development was rather slow; this influenced the development of morphological structures in his speech, thus contributing to his later acquisition of noun phrases with non-syllabic prepositions. A phenomenon of this nature could be responsible for the fact that in Karel's acquisition of the instrumental case forms with prepositions, there was a period of transition (which we did not find in Gvozdev's diary) lasting for about six months (2;6 -

3;0), when he used prepositions sometimes and sometimes omitted them. It was only after the age of 3;0 that Karel started using both the ending as well as the preposition.

Zhenya, on the other hand, had two distinct periods in his acquisition of the instrumental case forms, where the borders are clearly marked:

(a) The period with endings, but without prepositions,lasting from 1;11 - 2,4, and

(b) The period with endings and with prepositions lastingfrom 2,4 on.

Despite the fact that the time at which the prepositional and non-prepositional forms are acquired by these two children differ, we do agree that in their linguistic development both periods are represented.

5.3. HYPOTHESIS (3):

The quantitative relationship between different endings within the instrumental case influences the process of substitution, i.e., the more frequent endings in the adult language replace the less frequent ones and this fact is demonstrated in the order of acquisition of the morphemes concerned in the child language.

According to the available **statistics of Russian nouns** (see Appendix V), which is based on the analysis of five different genres, and which shows the average from the

available texts (fiction for children, fiction for adults, plays, radio broadcasts for youth, and articles for periodicals), the percentage of masculine nouns is higher than that of the feminine nouns. This could be responsible for the fact that the masculine instrumental ending in Zhenya's speech precedes the feminine instrumental ending.

Comparing the results of research from both diaries about **frequency** as the most important factor in deciding on a particular ending, one has to be very cautious because, as mentioned above, a Czech-speaking child is exposed to two languages simultaneously right from his birth, namely, Standard Czech and Colloquial Czech.

As the data from Ohnesorg's diary as well as the evidence from Pačesová's research show, it is the Colloquial language that the child turns to as his means of communication. This, however, only confirms Gvozdev's hypothesis about frequency as the most important factor in language acquisition in general, because during the first few years of the child's linguistic development, approximately the time before he reaches the age of six and starts going to school, this is the language that he is mostly exposed to, and is first reflested in his speech.

During our analysis of the predominant endings some other factors, apart from frequency, have appeared to be very influential in the acquisition of the instrumental case forms.

5.3.1. The factor of inherent gender

One of them is **the notion of inherent gender** that seems to be quite powerful in the domain of the Slavic languages, controlling the process of learning, especially during the early stages of linguistic development. What it affects, in fact--considering the topic of our thesis--is the masculine nouns ending in **-a** in the nominative case of singular nouns. Due to their "feminine" ending, they are declined as feminine nouns; their qualifiers, however, receive the endings of the masculine declensional type. The combination of these two contrastive factors results in the child's inability to produce correct endings of this type of nouns for a number of years. As noted above, the role of this category has been recognized by many researchers.

5.3.2. The factor of limited semantic function

Another very important element that plays a critial role in instrumental case forms acquisition; is **the limited semantic function of the ending**. This factor, among other things, seems to have also contributed to the earlier acquisition of ending **-ом** in Zhenya's case, because the frequency of the masculine ending **-ом**, as indicated earlier, may not be very high.

Similar examples can be found in Karel's speech development, where in the plural forms he did not pick up the frequent **-y/-i** endings, perhaps, because of the number of functions they perform (see above). Rather, he uses the **-ma** ending for all the forms of the instrumental case in plural,

irrespective of their gender; in Colloquial Czech the function of this ending is restricted to only the forms of the instrumental plural only, and no other case.

In contrast, Feofanov's study of acquisition of Russian prepositions shows (see 2.2.1.) that the ambiguous semantic function of certain prepositions does not seem to be a factor that slows down their acquisition by children. On the contrary, they are acquired first. According to Feofanov, it is the factor of frequency of occurrence in the adult language that plays a role here. This phenomenon casts doubt on the importance of the limited semantic function of the linguistic item in child language acquisition.

5.3.3. The factor of perceptual salience

The notion of **perceptual salience of a grammatical morpheme** represents another factor that could influence the child's choice of ending, and it has been very well developed by Brown (see 2.1.) According to him, stress is one of the factors that contributes to salience of a morpheme. Of suprising interest is the discovery that in Zhenya's acquisition of the instrumental case forms, when overgeneralizing the masculine ending -ом, he overgeneralizes only the unstressed forms. The overgeneralized ending -ьм is not salient, not as noticable as stressed -ом would be; this casts some doubt on the importance of acoustic salience. No similar examples were found in Karel's acquisition of the instrumental case endings, because the role of stress in Czech is different from Russian.

5.3.4. Summary

To summarize our conclusions, with respect to all the above mentioned factors that influence selection of one particular ending above another, we come to the conclusion that they are all potentially involved, in each item that is acquired; all three factors are working together.

Looking at the opposition of Russian singular instrumental case endings that Zhenya was overgeneralizing, namely, -ом and -ой, and the Czech plural instrumental case ending that Karel was overgeneralizing, namely, **-ama**, in each of these two instances it is obvious that the child is choosing one ending only. Despite the fact that Zhenya did not overgeneralize the -ом ending all the time when learning the forms of the instrumental case, he chose it as the first, unique marker of the instrumental case. The ending -ом is more frequent than -ой(cf. the statistics of Russian nouns according to gender, Appendix V), less ambiguous (cf. Appendices II and III) as well as more salient because of its phonological representation; the child is perceiving the opposition of the bilabial vs. palatal consonant through his ears as well as his eyes.

In Karel's linguistic development we find a situation similar to Zhenya's: the **-ama** ending definitely comes before -**y**/-**i** ending because it is more frequent in the linguistic environment of the child. At the same time it is unambiguous; it is the only ending of the Colloquial Czech singular instrumental noun phrases, and, finally, it is more salient

because of its length (two syllables) as well as the combination of its contrastive features (a nasal bilabial consonantal phoneme surrounded on both sides by a low back vowel) These factors are sufficient enough for the child to remember the sounds easier.

Within a very limited framework, such as the acquisition of only one case, the evidence is inconclusive. All the factors we can detect at work during the process of learning are, presumably, working together.

An exactly reverse situation can be found in the instance of the genitive case of masculine and neuter plural nouns in Czech and Russian, where the factors come into conflict. The most frequent form is the "zero" ending, but the results from the children examined (Karel, Zhenya, and all the children mentioned in Pačesová's analysis) show that they all overgeneralize the accoustically salient endings of this case: the ending - ов in Russian, and the endings - **u** / - **i** in Czech. This constitutes another topic for further research.

Reviewing Gvozdev's hypothesis about the notion of mixing cases, Ohnesorg's data support his proposition that right from their early stages of their linguistic development children do not experience problems in distinguishing different cases from each other.

5.4. ADDITIONAL REMARKS

Comparing the linguistic development of these two children one cannot but notice that despite the fact that they each follow different paths during this long and painstaking process, they both achieve the same results at almost the same time. As it appears from Gvozdev's diary, Zhenya's phonological development is faster than Karel's, but his morphological "maturity" goes through a long period of trials and errors.

Karel, on the other hand, "experiments" a lot with the Czech sound system, resulting thus in his more cautious and careful selection of the morphological endings; when uncertain about the inflection, he prefers to use a different lexical unit.

As the evidence from both diaries show, the two children both started the acquisition of the instrumental case forms before the age of 2,0. Despite the different pathways they choose and strategies they follow, they reach the same goal at approximately the same time; soon after the age of 3,0.

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APPENDICES

APPENDIX I

Endings of the nominal instrumental case forms in Russian.

	o-stem	a-stem	i-stem
	hard/soft	hard/soft	soft
sg:	-ом/ -ем/ -ём	-ой/ -ей/ -ёй	-ью
	(мальчиком, морем, ружьём)	(женой, песней, семьёй)	(тетрадью)
	hard/soft	hard/soft	soft
pl:	-ами/ -ями	-ами/ -ями	-ями
	(мальчиками, морями)	(женами, песнями)	(тетрадями)

APPENDIX II

Ambiguity of the Russian singular instrumental case ending -ом

Instrumental singular ending of hard-stem masculine nouns	отцом
Instrumental singular ending of hard stem neuter nouns	окном
Prepositional case ending	

of masculine adjectives
and special modifiers.....(о) ново**м** доме, (о) моё**м** столе

Prepositional singular ending
of neuter adjective
and special modifiers.....(о) большо**м** окне, (о) твоё**м** деле

APPENDIX III

Ambiguity of the Russian singular instrumental ending -о́й

Instrumental singular ending
of feminine nouns.....мамо**й**

Nominative singular ending
of masculine adjective.....плохо**й** человек

Genitive singular ending
of feminine adjective
and special modifiers.....ново**й** (это**й**) книги

Dative singular ending
of feminine adjective
and special modifiers.....старо**й** (одно**й**) собаке

Prepositional singular ending
of feminine adjective
and special modifiers.....железно**й** (одно**й**) дороге

APPENDIX IV

Singular/Plural frequency of Russian nouns

Singular	71.5%
Plural	28.3%
Indeclined nouns	0.2%
Total	100%

(Steinfeldt 1963:35)

APPENDIX V

Gender frequency of nouns in Russian

masculine	46.8%
feminine	35.1%
neuter	15.5%
common gender	2.6%
Total	100%

APPENDIX VI

Endings of the nominal instrumental case forms in Czech

	o-stem	**a-stem**	**i-stem**

.....hard/soft.....	.....hard/soft.....	.....soft
sg:.....-em/-em.....	.....-ou/-i.....	.....-i
.....(vlake m,	přístroje m).....(ženou,	písní).....(holí)

.....hard/soft.....	.....hard/soft.....	.....soft
pl:.....-y/-i.....	-a m i/-emi.....	-(e)m i
.....(vlaky,	přístroji).....(žena m i,	písně m i).....(věcm i)

APPENDIX VII

Frequency of Czech plural instrumental ending -y/-i

.....o-stem.....	.....a-stem.....	.....i-stem
.....hard/soft.....	.....hard/soft.....	.....soft
Nom. pl (kameny,	chlapci).....Gen.sg.(ženy,).	.....Gen. sg. (kosti)
Acc. pl. (stoly,	-).....Dat. sg. (- , duši)	.....Dat. sg. (síni)
Ins. sg. (poháry,	hoši).....Acc. sg. (- , duši)	.....Loc. sg. (dlani)
Voc. sg. (kartáčky,	letci).....	

APPENDIX VIII

Singular/plural frequency of Czech nouns

Singular	**75.81%**
Plural	**24.19%**

Total.....100%